THE AGING PROCESS

A. DEMOGRAPHICS OF AGING

Recognizing and adjusting to the demographics of the population one is serving, allows that person to better accommodate the needs of whomever they are trying to help. This is particularly true in aging arena. The number of elderly are continuing to grow and will into the next century. About 13% of our current population is made up of older adults. To demonstrate the rate of growth one need only look at the recent trends. In 1994, the number of 65-74 year olds was 8 times that of 1990, in the 75-84 group it was 14 times greater, and for those 85 and above, the number was 28 times greater. By 2030, it is estimated that there will be 70 million older adults making up 20% of our population.

The number of women elderly far exceeds the number of men. There are roughly 146 older women for every 100 older men. For those 85 and older, this number soars to 259 females for every 100 males. Thus, it makes sense that only 43% of older women are married while more than 77% of older men are married. On the same note, half of all older women are widows, numbering 8.5 million. This is compared to just 1.7 million widowers.

Financially, the elderly are also facing uphill battles. The average older male's income is roughly $15,250 a year while the average older female's is $8,950 a year. This means that nearly one out of every five of our elderly lives at the poverty or near poverty level.

B. BIOLOGICAL ASPECTS OF AGING

The knowledge that physical changes are an inevitable part of the aging process will help an older person to deal with them, and will assist the community advisory committee member to better understand the needs of the nursing home resident.

The human body is made up of cells that in turn form the tissues, organs, and bones. These cells are constantly being created, developing and dying, and new cells are generated to replace them. In an aged person, the cell regeneration rate appears to decrease and a slowing down of biological functions and reduction in reserve follows. The person will usually show some of the following signs of aging:

1. Skin and Appearance

The skin loses some of its elasticity, and becomes dry and wrinkled because the sweat and sebaceous glands function less effectively. As the circulation of the blood to the skin slows, cold is felt more readily. With aging the skin becomes thinner and may be more susceptible to being broken or cut. When broken, the skin may be more prone to infection.

Changes in the face appear as well. The loss of teeth causes a shortening of the lower part of the face, while the nose lengthens. Hollows may develop beneath the eyes. The hair whitens and thins. In our youth-oriented society, the beginning of any of these changes can seem a terrible threat.

2. Bones

As a person becomes older, the bone mass decreases by as much as 10 percent after the age of 35. For example, the spinal discs in the backbone compress, causing a bowed back. In addition, the bones lose elasticity and become more brittle, making breaks more likely. Osteoporosis is a significant concern to older people. The older a person is, the more at risk they are. In particular, older women have very high rates of osteoporosis. Estrogen has a protective effect on bones, yet they no longer produce it in levels effective to protect them from brittle bones. Osteoporosis accentuates the decrease in bone mass, resulting in additional breaks and fractures. There may also be slight changes in the bone angles, causing new stresses and a higher probability of breaks. These changes make an older person more vulnerable, and perhaps more cautious in moving around and traveling.

3. Senses and Reactions

The senses -- hearing, sight, taste, smell, and touch -- become less sharp with age because of the decreased number of cells in these systems. In addition, there is a general slowing down of responses to stimuli. Rapid, voluntary movements are not performed as quickly. The muscles are slower and less precise. The balance is not as acute.

Any of these changes may produce a chain of crises in an older person. For instance, as taste and smell diminish, food becomes less appetizing. Their senses are no longer as acute, leaving older adults less aware of what their bodies are telling them. Messages of hungry or thirst can go unrecognized in an older person. If a person eats too little or improperly, mental confusion may result and meals may be still more neglected. A downward cycle of malnutrition, inactivity, and disorientation could follow. An aging

individual may experience a loss of coordination, causing him/her to fall more often. This may lead to him/her withdrawing from community activities, which in turn could mean loneliness, depression, lost appetite and a reduction in vitality.

All of these changes are hard to endure. Nonetheless, in many cases the changes need not impair behavior. An older person does not have as much physiological reserve as a younger person, but fortunately, most stimuli are far above the ordinary thresholds of perception, and people do not often operate at the limit of their capacities. An active life-style is still possible, particularly if an older person adjusts creatively to the changes and losses that have occurred.

C. PSYCHOLOGICAL ASPECTS OF AGING

1. Memory and Learning

Memory and learning involve our ability to register, retain, and recall experience. Under most circumstances, age-related changes in the primary ability to learn appear to be small. However, there may be problems in sensory perception, control of attention, motivation, or poor general health. In addition, with the general slowing down of responses that come with aging there may be a reduced capacity to handle complex activities and unfamiliar tasks. But usually learning ability does not decline, especially in those who continue to exercise it. It should also be noted that long-term memory in older people generally remains pretty sharp even as their short-term memory skills are decreasing.

2. Mental Illness

One of the most myth-shrouded areas of aging is that of mental illness. For many years, senile brain deterioration has been thought of almost as a normal result of the passage of time. It is true that brain disease in later life occurs more frequently than do the mental illnesses of early life. Even so, only a minute percentage of the total population can expect to be institutionalized for mental illness in later-life.

Further, it has been found that mental illness in older persons can occur as a side effect of physical illness. Medications, and poor nutrition and hydration can result in behaviors that are misconstrued as mental illness. Infectious diseases and malnutrition can cause mental symptoms that remain long after the original condition is controlled.

Gerontologist Dr. Robert N. Butler, in his book Why Survive? Being Old In America, discusses "the myth of senility":

> *"The notion that old people are senile, showing forgetfulness, confusional episodes and reduced attention is widely accepted. 'Senility' is a popularized laymen's term used by doctors and the public alike to categorize the behaviour of the old. But anxiety and depression are also frequently lumped within the same category of senility, even though they are treatrable and often reversible. Old people, like young people experience a full range of emotions, including anxiety, grief, depression and paranoid states. It is also easy to blame age and brain damage when accounting for the mental problems and emotional concerns of later life."*

As clearly noted, mental illness is not a requisite to aging. Yet, there is one area of mental health to which the elderly are often vulnerable. This area is depression. The increased changes to their life that include physical, emotional and social, combined with often acute periods of isolation, leave a considerable number of our elderly in a state of depression. Detection may be difficult, but if treated, over 80% show improvement.

3. Attitudes Toward Death and Dying

Are elderly persons inordinately anxious about death? According to stereotype, yes. But the fact is that younger persons are more likely to be concerned about death. Older persons are seemingly more concerned with finances.

One study comparing interviews with persons who died within the year and interviews with those who survived the year revealed that the individuals closest to the time of their death showed a much greater interest in their immediate environment. This suggests that isolation is a great disservice to the dying. Denying the dying person access to others and to a normal, stimulating environment reduces the likelihood that he/she will be able to resolve his or her own departure with dignity. Isolation of the dying may be a reflection on the attitudes of younger professionals who are contemplating their own morality. None the less, isolation is a problem and must be addressed.

4. Some Characteristics of Older Persons

Society often tends to lump older persons together in a discriminatory way -- "He's getting old and senile," "You can't teach an old dog new tricks," or "Old people live in the past." This is ageism. It is important to recognize there are great varieties in character, ability, interests, and personality among older individuals. Nonetheless, gerontologist Dr. Robert Butler lists ten late-life characteristics, which tend to appear frequently among older persons:

- Change in the sense of time. Since the future is short, some retreat to the past. Others emphasize the importance of the here and now, of living in the moment.

- Sense of the life cycle. Older persons can experience in a personal sense the entire life cycle.

- Tendency toward life review. The realization of approaching death stimulates older persons to relive and review their past experiences. Through this process, they may resolve troubling conflicts and fears. Attentive listeners may help older persons to recount their lives.

- Reparation and resolution. Older persons may feel guilt for and try to atone for past actions.

- Attachment to the familiar. Familiar objects facilitate the life review and provide a sense of security.

- Conservation and continuity. The old have the opportunity to pass on knowledge to younger generations.

- Desire to leave a legacy. Older persons are concerned about leaving something behind when they die, be it grandchildren, possessions, or a work of art or social importance.

- Transmission of power. One of the psychological issues of old age is when to surrender one's power and authority to others.

- Sense of fulfillment in life. Some older persons experience a sense of satisfaction and pride upon looking back over their lives.

- Capacity for growth. The capacity for creativity and wonder need not decline with old age.

D. AGE RELATED SENSORY CHANGES

1. Vision

a. Behaviors which may indicate visual problems:
- Coordination difficulties
- Positioning of objects
- Squinting of eyes
- Color selections
- Uncontrolled eye movements
- Depth perception
- Inability to cope

b. Helping older persons with visual problems:
- Positioning of objects in visual field
- Labeling objects - use large lettering
- Simplify the visual field - remove objects that are cluttering the area
- Consistently position objects - do not move or rearrange objects
- Give pre-warning - announce to person what you are going to do
- Helping to use other senses as compensation

2. Hearing

a. Behaviors which may indicate hearing loss:
- Increased volume of speaking
- Positioning of the head
- Asking for things to be repeated
- Blank looks and disorientation
- Isolation
- Attention span
- Not reacting
- Emotional upset

b. Communicating with those with hearing problems:
- If person has a hearing aid, make sure it is used, or find out why not.
- Face the person - allow him/her to read lips
- Make sure he/she is aware that you are addressing him/her - touch person to ensure having attention
- Speak slowly and distinctly
- Use short sentences

- Give short explanations - ex. I like to shop at Food Town, the grocery store
- Do not repeat same phrase over and over - use different expressions until one point gets across. Ex. I have a cold. I am sick. I do not feel well, etc. (Make sure that the person does not have dementia, for this could be very confusing to them).
- Do not shout, lower pitches may be clearer
- Use gestures and/or objects which illustrate verbal message. Ex. point to direction
- Attempt to speak in ear in which person retains the best hearing.
- Avoid standing in front of window or other light sources. The glare from behind makes it difficult to read lips.

3. <u>Touch</u>

a. Behaviors which may indicate tactile loss:

- Avoidance of touching
- Extremes in recognizing pain
- Oral exploration
- Not responding
- Grasping

b. Assisting person with tactile loss:

- Use touch therapy - communicating through touch
- Talk - tell person what you are doing, helps him/her to use multiple senses
- Gripping - make sure person has adequate hold on object
- Pressure- increase pressure when touching someone

4. <u>Taste</u>

a. Behaviors that may indicate taste changes:

- Loss of, or increased appetite
- Complaints about food
- Questions about food person is eating
- Tongue coating
- Excessive seasoning

b. Making food more appealing:

- Food presentation
- Separating food
- Texture of food
- Mouth and dental care;
- Taste parties.

5. Smell

a. Behaviors which may indicate olfactory changes:

- Not reacting;
- Congestion;
- Person says he/she can't smell objects;
- Increased body odor.
- Can no longer taste food

b. Helping person compensate for loss of smell;

- Allow person the opportunity to smell food before it is placed in his/her mouth;
- Explain what food has been prepared - person thinks of smell; and
- Label items that look alike so person can use other senses to compensate.

6. Mobility and Balance

a. Behaviors which may indicate mobility limitations:

- Poor posture
- Dizziness
- Gait

b. Helping person to maintain or strengthen the capability of movement:

- Support person on the side that needs support
- Assist person in standing
- Teach person to grasp you for support, rather than you holding them
- Carefully check to insure that any hazards, such as trash cans or foot stools, are removed from the path of the older person
- Be patient, some older people do not move as rapidly as some younger people.

E. ARTHRITIS

The most frequently occurring chronic condition in the elderly is arthritis. It is reported that one out of every two elderly persons suffers from this affliction. There are more than 100 different types of Arthritis, but they all share common evils of pain and limiting movement. With the pain frequently comes stiffness in and around joints. The most common form of arthritis is known as Osteoarthritis. This form involves the breakdown of cartilage and bone. Rheumatoid arthritis is a disease that causes inflammation of the joint lining.

Most forms of arthritis last a long time and have no cure. There can be reductions in pain and increased mobility in many cases via medications and exercises. The treatment is largely dependent upon the type of arthritis one suffers from.

F. ALZHEIMER'S DISEASE

Alzheimer's Disease, named for the German neurologists who first described it in a 51-year old patient in 1906, is a widespread but little-known brain disorder. Alzheimer's is a progressive, degenerative disease that attacks the brain, resulting in impaired memory, thinking, and behavior. Ultimately, Alzheimer's will result in death.

Many victims cannot be left alone. Their wanderings and forgetfulness -- often unknown to outsiders -- make extraordinary demands on their families and other care givers.

Alzheimer's most often strikes the old, but it may also affect persons as young as 40. An estimated one-half of all cases of pre-senile and senile dementia -- "senility" -- stem from Alzheimer's.

Diagnosis, though increasingly sophisticated, still depends on painstaking elimination of other possibilities. Currently, no effective treatment for Alzheimer's exists.

The cause is unknown. Specialists now believe heredity, once the number one suspect, accounts for a small percentage of suspected Alzheimer's cases. Alzheimer's does not usually affect more than one member of any family. Researchers have turned their attention to viruses, environmental toxins and changes in brain chemistry.

One theory: Nerve endings in the outer layer of the brain degenerate and disrupt the passage of signals between cells. When the brains of Alzheimer's victims are examined at autopsy, two types of microscopic abnormalities -- called plaques and tangles -- characteristically appear.

From onset of symptoms, Alzheimer's can last anywhere from three to 20 years or more. It always ends in death.

Sources: Triad Alzheimer's Association Chapter and Duke Alzheimer's Family Support Program.